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SICKNESS AT THE MASSACHUSETTS STATE PRISON.

Among the documents just printed by order of the Senate, we find some relating to the late sickness in the State Prison at Charlestown, which will be interesting and important as affording more authentic statements than have yet been before the public respecting that remarkable epidemic. The following is the Report made by William J. Walker, M.D. Physician to the Prison.

To His Excellency Levi Lincoln, Governor of the Commonwealth of Massachusetts.

SIR,—On the evening of the fifth of August, about sun-setting, I received a message from the Warden of the State Prison, stating that many of the Convicts were suffering severe pain, and requesting my attendance. I repaired immediately to the Prison, and found that two men had been removed to the Hospital during the afternoon, that others had since sickened, and that the disease was becoming general among them. My attention was first drawn to several who had been taken from their cells, and placed in the gallery, that they might be more easily assisted. An examination of these cases convinced me that I had to do with a disease of no ordinary grade or character.

In answer to my inquiry what made them sick, they each informed me that they had been well up to that day, and knew not what had produced their malady. I next visited some in their cells, and found a remarkable similarity in all;—that although the disease had but recently commenced, its effects had been truly wonderful and distressing. The contortions of countenance, writhing of body under pain, and outcries of suffering, issuing from every part of the Prison, presented a picture of distress, which, familiar as I have been with scenes of suffering at Military Hospitals, I have never seen equalled. The occasion required prompt and decisive measures—but here a difficulty presented itself. Night had arrived—as usual the Prison was under the care of the Warden and Night Watch of officers only, while its other officers were at their homes, or scattered about the town. The Hospital was in another building, some rods distant—there were no Watchmen on the walls, and darkness might afford facilities for escape. Under these circumstances,

I advised with the Warden, and, in co-operation with him, executed the following plan of operations. First—a messenger was sent to summon the whole corps of Officers to their posts. Second—the Nurse was required to have all the beds in the Hospital in readiness for the reception of the sick. Third—a man was sent round the Prison, with orders to inquire at every cell, and where he found a man sick, to take from him his water-can, and place a mark upon the door. Following close upon the heels of this messenger, I visited all the sick in their cells, encouraged them to bear their pain with fortitude, assured them the means of relief were at hand, and sorted out such as suffered most severely and placed them together in the gallery. An officer was now directed to go round among the cells once in half an hour, and give a pill of opium to each man, until his suffering should abate. The next object was to convey the sickest patients to the Hospital ;—and I am happy to say, such was the state of discipline among the officers, and such their alacrity on this occasion, that the Warden had no difficulty in conveying the sick from Prison to Prison, nor in passing every necessary person or article without delay, and without at all endangering the safe keeping of the Convicts, although the Night Watch of officers only was present during these operations. From this time, I am confident thirty minutes had not elapsed before we were able to send aid, courage and confidence, to the remotest cells of this extensive establishment. Having removed the first class of patients to the Hospital, and prescribed for their cases, as will be explained by and by, I returned to the New Prison, examined all the sick in rotation, collected another class of patients, and had them conveyed to the Hospital likewise. In this manner our time passed, until about nine o'clock, when an officer could be spared to invite the medical gentlemen of this town and the city of Boston to attend and witness the disease. These gentlemen were soon in attendance, and afforded us much relief by their advice and assistance. Some time after midnight, I made a report of the state of things to your Excellency, and early next morning addressed the following Note to the Warden and Inspectors of the Prison.

GENTLEMEN,—I feel it a duty to advise and request that an accurate chemical analysis be made, by some competent persons under your authority, of the remnants of food left from yesterday's ration, and likewise of the stools of the sick ; and in a particular manner to inquire if they contain anything poisonous or deleterious to health.

Respectfully yours, &c.

WILLIAM J. WALKER,

*Monday morning, 7 o'clock, }
August 6, 1832. } Physician Mass. S. Prison.*

P. S. I have further to request, that an able Apothecary may examine and weigh all the articles in the Dispensary—compare them with the prescriptions made, with the quantities purchased, and report any deficiency of medicines which might prove deleterious if mixed with food—and that his Report be sealed, and not opened until the Report of the Analyzing Committee.

I was prompted to the above course by the conviction that there might be those who would believe this disease had been produced by culpable negligence, in not securing healthy food for the Convicts, or by poisonous articles mixed therewith ;—that important legislative or judicial proceedings might grow out of the case, and that it would be expected of the Officers of this Institution to establish the facts as they actually existed, and upon the most unquestionable authority.

In compliance with this Note and instructions soon after received from your Excellency, the Inspectors employed Professor Webster, of Harvard College, to examine the utensils and premises of the Prison, and to analyze the food used by the Convicts on the day preceding the appearance of the disease. They likewise employed Mr. Daniel White, of the firm of Samuel Kidder & Co., a highly respectable Druggist of this town, to examine the medicines in the Dispensary of the Prison, and to report anything wrong in that department. These gentlemen have performed the duties assigned them with their accustomed accuracy, as will be seen by their Reports. At the same time, John Ware, M.D. and Joshua B. Flint, M.D. of Boston, and Josiah S. Hurd, M.D. of this town, were joined with me in consultation to attend the sick, and develop the true nature of the disease. To these gentlemen I shall always feel grateful for their kind attention and judicious advice on this occasion.

Having premised thus much, I shall proceed to record the phenomena which characterized the disease—the treatment adopted, with its success—its resemblance and discrepancy with certain diseases familiar to us—and finally, to draw such inferences as to its origin and nature, as facts seem to warrant and require.

During the first 48 hours, there was neither pain in the head, nor disturbance of the intellectual functions ; but when fever supervened upon the primary affection, headache was among its concomitant symptoms. It likewise existed as a primary symptom in some of the cases which commenced subsequent to the 6th of August. The air thrown out by expiration was in no case as warm as usual, and in some cases it was cold. The lungs could be inflated and emptied of air to the full extent, without increasing pain. The tone of voice was similar in all the cases, and such as to indicate severe suffering. The attitude chosen by the sick was recumbent, upon the back—head thrown backwards—arms not folded on the epigastrium—legs drawn up with the heels close to the buttocks, so as to enable the patient to maintain a constant rocking of the body from side to side. The pain was confined to the abdomen. There was no permanent contraction of the abdominal muscles, nor did pressure on them either increase or diminish suffering. There was no flatulence—no tenesmus. During my whole attendance, I did not observe any spasmodic action of the abdominal muscles, or of the limbs. In one case, treated by Dr. Hurd, spasmodic motions were observed ;—and another patient told me, some days after, that, during his sickness, he could not prevent his legs from starting and suddenly drawing up. The countenance was pallid ;—the features contracted, and somewhat distorted ;—the skin was cool in all, and in some cases it was cold ;—it was not sweaty, or unctuous ;—the thirst was insatiable and distress-

ing ;—the tongue was not coated, but was somewhat exanguious, and inclined to a sub-livid color ;—its temperature varied much and often ;—at one time it would be but little below its natural temperature—at another, cool—and again cold ;—its greatest degree of coldness equaled that of the flesh or blood of a cold-blooded animal, or what we experience when we place our hand on a wall recently drenched by a summer shower. During the progress of this disease, the tongue was seldom found to be coated ;—it was sometimes whitish, but generally of a cherry red—not smooth or swollen, but retaining its usual villous appearance, and differing from a natural state mostly in color. The taste was not bitter or nauseous. A disposition to vomit was common to all. The quantity of matter thrown from the stomach, however, was small ; and, excepting in a few cases, where food was discharged, consisted of a white tenacious liquid, unmixed with bile, ascidities, or anything likely to provoke vomiting. The evacuations by stool consisted, at first, of healthy natural fæces—next, a brownish liquid, changing to a pink, being tinged with blood, after the disease had continued a certain time. There were, however, no coagula of blood, bile, or undigested food, to be found in them. In a few cases, these stools were succeeded by others, having the appearance and consistence of cream. I have since queried with myself if this might not have been pure chyle, thrown back upon the intestines by an inverted action of the chyloferous vessels. The quantity evacuated was great in all cases—in some, it was enormous ;—most of them filled their night-buckets, which contain more than ten pounds of water, by weight ;—many filled them twice, while some filled them partly full the third time. We are, therefore, warranted in saying, that the bodies of many of the Convicts were lightened twenty pounds within a few hours ;—for it must be remembered, that all liquids were removed from them as soon as possible after the outbreaking of the disease. The pulse was exceedingly affected and variable ;—at one time, it would be full, hard, quick and bounding—then small, wiry, hard and creeping ;—again, it could with difficulty be felt at the wrist, or not at all ;—when it could be felt, it was uniformly hard, and such as to indicate prompt and copious bloodletting ;—and when relief was obtained, it became preternaturally slow. The remedies employed at the commencement of this disease, were entire abstinence from liquids, frictions of the skin, external warmth, opium, and bloodletting. By abstinence from liquids, we were enabled to keep opium on the stomach, as well as to lessen the disposition to vomit and purge. By friction and external warmth, we were enabled, in some measure, to restore the circulation and natural warmth of the body, and give opportunities for practising more efficient remedies. By the prompt and liberal use of opium, many of the milder cases were so far relieved as to require only diet, rest, and occasional laxatives, for their cure. In other cases, its use relieved pain, diminished vomiting and purging, promoted warmth, and proved a valuable auxiliary to other remedies. The quantity of opium dispensed at a dose was about 3 grains, and at intervals of 30 minutes. The greatest aggregate quantity taken by any individual, I should think, was about 20 grains, or equal to 500 drops of laudanum. As, at first, the most severe cases were treated by bloodletting—and as, from time

to time, those suffering the greatest pain were subjected to the same remedy, and promptly relieved by it, we cannot say there were or were not some cases which might have wholly resisted the curative powers of opium. Certain it is, however, that opium relieved pain, and suspended the symptoms for a while, in many cases, where, at the end of 24 to 48 hours, the disease returned. In practising venesection, under symptoms as above stated, I anticipated much difficulty in obtaining a ready and sufficient evacuation of blood. There was, however, but one case, in which frictions and extensive incisions into the veins did not enable us to obtain the requisite quantity. Had we been some hours later after the invasion of the disease, I fear it would have been otherwise. The case of exception above alluded to, was treated by my friend, Dr. Hurd, who represents that he found the man cold and pulseless, with spasmodic action of the muscles of the legs, and all the appearance of approaching dissolution. Under these circumstances, he attempted venesection at the arm, but without success. He next opened the temporal artery, and obtained blood of a darker color than is common to arteries ;—the blood at first merely trickled down the temple ;—after eight or ten minutes it flowed more freely, and of a better color ;—in about thirty minutes a sufficient quantity was obtained, and the man relieved. That the difficulty of obtaining blood in this case depended upon the state of circulation, and not upon peculiar organization, or insufficient incision in the vessel, is clearly proved by the facts that the artery was opened immediately anterior to the ear—that towards the close of the operation the blood became of a vermilion color, flowed in a full stream—and that several copious secondary hemorrhages occurred on subsequent days, and required much care to restrain. When practised at the commencement of the disease, bleeding was followed by immediate and perfect relief—so much so, that men with skin and tongue cold, and pulse absent or scarcely perceptible, were entirely relieved by the loss of from 16 to 32 ounces of blood ;—the pain was alleviated, vomiting and diarrhoea removed, and the disease, as it were, extinguished. Hence it occurred, that those who were most severely attacked, were not only soonest relieved from suffering, but speedily restored to health ; while those whose cases were trusted to opium, and not relieved by it—or for other reasons not bled at the commencement, passed into a new state of disease, characterized by headache, pain and soreness of the epigastrium, thirst, dysuria, diarrhoea of a mucous character, with skin and pulse approaching to what is above related—but alternating with occasional flushes of fever and febrile development of pulse. For the removal of these symptoms, we were constrained not only to bleed, but to repeat the operation at intervals for some weeks—to give occasional laxatives, blister, and apply moxas, maintain the most rigid diet, with demulcent drinks—have recourse to opiate enemas for the removal of diarrhoea, and frequently to see our patients thrown back into their former state by trivial accidents or imprudence.

The whole number of Convicts attacked with this complaint was 196 ;—of this number 115 sickened within the first 24 hours, and the remaining 81 at various times after. The last patient severely attacked, was on the 7th September—and the last discharged from the Hospital, cured of

this malady, on the 23d October, having resided in the hospital 79 days. Thus the whole number finally recovered, notwithstanding the severity of the first symptoms, and the protracted sufferings of those whose disease was not wholly arrested by rigid treatment at the commencement.

Having said thus much of the treatment, we naturally come to the inquiry—What was the disease, and what were its causes? If we compare it with the various diseases of the abdomen, which most nearly resemble it—such as inflammation of the peritoneum or viscera of the abdominal cavity, spasmodic affections, icterus, colic, colica pictonum, cholera morbus, dysentery, or with the effects of corrosive poisons taken into the stomach—we shall find, in each of these complaints, striking symptoms not noticed in this; while here, the excessive purging, coldness, and state of the pulse, are symptoms not common to any disease with which we are familiar in this part of the globe. In searching for local causes, we have been equally unsuccessful. The diet of the Couvicts, always plain and wholesome, has received particular attention during the present season;—the use of old potatoes had been dispensed with, and rice substituted in its stead. The ventilation of the Prison, which had proved sufficient in former years, had been much increased—while the cleanliness of person and habitation, required and maintained by the authorities of the Prison, is not surpassed in the comfortable dwellings of our country. The most careful examinations, made by the Inspectors, as well as by every Officer of the Institution, could discover nothing poisonous in or about the diet or premises of the Prison:—none was found by chemical analysis; nor could the complaint have had its origin in a poisonous principle, sometimes accidentally present in food usually healthy—such as shellfish, cheese, partridges, &c.—since the same parcels of food were used on subsequent days, without the recurrence of similar effects. It is true, that certain articles, the class of acrid poisons—such as elaterium, croton oil and perhaps others, in undue doses, might produce excessive purging with nausea;—yet we have no reason to believe that the quantity evacuated could be so great, of such appearance, or relieved by the same means. The same observations will hold good as to the various articles of the *materia medica*;—and, for still stronger reasons, are they true as respects the remaining classes of poisons, usually denominated astringent, narcotic, narcotico-acrid, and septic—since poisons produce their specific effects on the human body, and no other, as surely as any other agents;—and when articles of these classes are taken into the body, they do not produce vomiting and purging, but symptoms widely different. Thus we see that spurred rye, which belongs to the class of narcotico-acrid poisons, could have no agency in producing this disease, even if it had been found in much greater quantity than is mentioned in the Report of the Inspectors—52 grains being found in $1\frac{1}{2}$ bushels of sound grain. But since this substance has been frequently, though, as I believe, unjustly considered the cause of other epidemic diseases in our country—and as a belief in this opinion is calculated to do much injury in a community so largely nourished by this grain, I trust I may be excused for saying the subject has been fully studied—that spurred rye has been found to produce the same effects on man as other animals—and that experiments on inferior

animals prove, that when they are fed upon it for five or six weeks, death ensues, and is attended with gangrenous spots upon the surface and internal viscera, and mortification of the extremities ;—but to produce this effect, one third of their food must consist of spurred rye. Experiment likewise teaches, that a very large dose taken at once may produce convulsions, other nervous symptoms, and death. I will merely add, that I have verified these experiments, and found a dose of 60 grains necessary to destroy so small an animal as a pigeon ; and that this dose sometimes fails ;—that a small rat, having eaten 95 grains in 13 days, died in convulsions, and that mortification had commenced at the end of his tail ;—that chickens may eat 30 grains per day, for weeks, without apparent injury ;—that I have known 30, 40, 60, and 80 grains taken at a time, by different individuals of the human family, with only producing slight temporary inconvenience. From the above it will be readily granted, that the small quantity of spurs found among the rye of our country, cannot be considered as dangerous to life, or even prejudicial to health. From the above considerations, I feel warranted in inferring that the late disease at the Prison was not produced by improper food, or poisonous articles mixed therewith ;—that it was not a disease common among us, but an epidemic of peculiar character, originating in some atmospheric or telluric causes, which we can neither explain, appreciate, nor control.

WILLIAM J. WALKER,

Physician to Massachusetts State Prison.

December 3, 1832.

The subscribers, having attended the Convicts at the Massachusetts State Prison during the epidemic disease which prevailed there in August last, fully agree in the description given by Dr. Walker of its symptoms and character.

JOHN WARE,
J. STEARNS HURD,
JOSHUA B. FLINT.

Touching the analysis of the possible causes of the disease described above, we offer the following extract from the Report of the Inspectors of the Institution.

A request was made by the Physician of the Prison, that a chemical examination might be had of the remnants of the preceding day's food, and also of the evacuations of the patients, for the special purpose of ascertaining whether they contained anything poisonous or deleterious to health. He also requested that an Apothecary might be appointed to examine and weigh all the articles in the Dispensary, to compare them with the quantity purchased and the prescriptions made, and to report any deficiency of medicines which might prove deleterious if mixed with food. Both these requests were complied with. The first examination was entrusted to Professor Webster, of Harvard University, who reported that he discovered nothing poisonous in any of the articles ; and the second was conducted by Mr. Daniel White, a respectable Apothecary, who stated, that having compared the bills for medicine purchased, with

the quantity on hand, he found the difference fully accounted for by the prescriptions of the Physician. The Inspectors considered it their duty to make further inquiries, in order to ascertain whether the disorder had been occasioned by any fault or neglect, and whether any and what precautions could be taken to prevent its recurrence. And as suspicions had been publicly expressed, that it might have been occasioned by the use of spurred rye, they caused all the rye, remaining in the barrel from which the prisoners had been supplied on the day before the disease broke out, to be measured and weighed, and then carefully examined by a competent person not connected with the Prison, who was instructed to pick out every particle of spurred rye, or other foreign substance, and put the same in a sealed parcel.

This parcel, together with a quantity of the rye, was sent to Drs. Bigelow, Channing and Ware, with certain specific questions, in answer to which they state that the spurred rye contained in that parcel was less than is ordinarily found in the same quantity of good merchantable rye, being less than a grain, by weight, to a quart; and that it could not have produced any sensible effect on health. They further declare, after a careful examination of all the circumstances of the case, that they know no reason for believing or suspecting that the disease was occasioned by any deleterious substance of a cognizable nature taken into the stomach. In corroboration of this opinion, it may be stated, that the same articles of food continued to be used by the prisoners during their convalescence and afterwards, and this without producing any bad effect whatever.

THE LATE DR. EDWARD HUDSON.

[Communicated for the Boston Medical and Surgical Journal.]

MR. EDITOR,—In the late Philadelphia papers, intelligence is brought us of the decease of EDWARD HUDSON, M.D., *Surgeon-Dentist*. I cannot but ask leave to occupy a brief space in your Journal, to pay some tribute of respect to his great professional worth.

A slight personal acquaintance with Dr. H., formed by a few short interviews, will not enable me to mention him with any degree of justice, either in relation to the fair standing which he sustained in society, or to those private virtues which none but an intimate friend can appreciate or describe. Yet all must respect the character of a man, which has been set forth as has that of Dr. H. by all who knew him and had occasion to mention him as a citizen, a neighbor, or a friend. And no one could pass an evening with him in his family, without viewing him as a much-beloved husband and parent, in an abode where that peace and happiness must dwell which are the sure fruits of mutual affection and kindness.

Dr. Hudson commenced his professional labors in Philadelphia, if I mistake not, more than thirty years ago. He was aware of the prejudices which existed against those who practised as dentists, and he knew the low estimation in which the art was viewed (deservedly though it might be); and he knew at the same time that if it were fully understood and faithfully followed, instead of being an inferior, almost useless and some-

times mischievous calling, as was the *whole* of surgery in the days when barbers were leaders in the practice, it might be rendered highly serviceable to mankind. And he commenced his labors with the determination that, so far as his own personal efforts were concerned, its usefulness should be demonstrated and its character improved.

Dr. H. was faithful to his resolution, and he lived to see the good effects which he knew must result from his exertion. He was satisfied that dentistry was not comprised in the shiftless exercise of an assumed or imperfectly-taught mechanic art, but must depend on a thorough knowledge of the anatomy, physiology and diseases of important organs in the human system, and on the judicious, skilful, and faithful treatment of those diseases.

He brought much of this knowledge to his aid in the commencement of his labors, and much of the skill which was requisite to give him confidence and success in his pursuit. He possessed a mind quick to discern, powerful and patient to investigate, firm and untiring to pursue; and, above all, benevolent and honest in the performance of professional duty. He valued his profession for the power which he possessed in it, not of replacing by artificial means the teeth which had been lost, but of preventing the suffering and destruction which the diseases in these organs occasioned; for he did not view the affections of the teeth as the mere process of *decomposition* in *dead ivory*, but of *diseases* of *living bone*. The term *caries*, or decay, in its common acceptation, he knew had conveyed erroneous notions, even to physiologists and surgeons, which had been extremely prejudicial to the practice of dentistry.

Dr. H. enjoyed a physical constitution which enabled him to devote the whole of his time to the study and labor of his profession. His ambition was, to do the best for his patients that the science and art of dentistry would admit; and so decidedly superior were all his operations for saving the teeth from disease, to those of most other men, that it has rarely been difficult to distinguish them, when viewed in comparison; and in cases where a few years had tested the good effects of both, the operations of very few men in our own country, or any other, would bear a comparison with his. And great must be the number of his contemporaries, both old and young, whose teeth must furnish testimony to these truths so long as they shall live.

Dr. H. was fully sensible of the importance of what is called a medical education, as a preparation for the practice of dentistry. He strove, both by example and conversation, to demonstrate the usefulness of this department of surgery, and to show the necessity of its receiving a due degree of protection from our medical institutions. He felt that quackery was as mischievous in this branch of practice as in any other, and should not be countenanced by medical men. He thought that the treatment of diseases of the teeth was as sure in its beneficial effects as that of any part of surgical practice; that it was a practice depending for its usefulness on a knowledge and application of the same principles; that instruction in the particular anatomy, physiology, diseases and treatment of the teeth, should be given by lectures and demonstrations in our medical schools; and, above all, that young men entering on the practice of dentistry should not be acknowledged by the medical faculty as worthy of

public confidence, on any other grounds than their having prepared themselves by the same course of studies, and obtained the same testimonials of approbation, which are required of those who are about to engage in any other department of medical practice.

He was fully of the opinion that without such provision and protection, this branch of the healing art would always be, in its general character, very much below that which its real importance, if clearly understood and demonstrated, would tend to give it. To withhold such provision and protection, was, in his view, but favoring imposition on the public, and discouraging improvement in the profession.*

Dr. H. did as much, probably, as any individual could have done in his day, for the improvement of dentistry; for his example has had an influence in almost every section of our country. He knew that he was not singular in his view of dentistry, nor alone in his efforts to improve it; and of the few whom he knew to be faithful laborers with him in the cause, he was ever ready to speak in the language of commendation.

Through the whole of his professional career, he was a devoted and faithful servant of his fellow beings, for the relief of their sufferings and the security of their enjoyment. And when it is stated, as it truly may be, that until the day of his death he had been without a professional rival or equal, in the city of his residence, it will be vain to attempt to describe how greatly his loss must be felt. He enjoyed the well-earned esteem and confidence of physicians of the highest standing in the city, and his memory must long be cherished with gratitude by all who have experienced his professional services. That his labors will always be worthy of the imitation of his successors, is a testimony which will ever be borne by

A MEMBER OF THE PROFESSION.

Boston, January 24, 1833.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JANUARY 30, 1833.

MORTALITY IN NEW YORK.

We have before us the New York return of mortality for the year 1832, which exhibits a fearful picture of the ravages of cholera in that city. It appears that the whole number of deaths was 10,359, which is 3996 more than has ever occurred there before. Of this number 3515 were of cholera; and the balance, 6844, represents the deaths from all other diseases. The deaths in 1831 were 6363; so that independently of cholera, the mortality has increased nearly 8 per cent. It is estimated that during the same period the number of inhabitants had increased from 210,000 to 220,000, or 5 per cent. There is therefore an actual increase of mor-

* The substance of these opinions and views, the writer learned from the lips of Dr. Hudson, and from some of his most respectable and intelligent patients.

tality beyond that of the population, independently of what is attributed to the cholera.

In comparing this mortality with that of our own city, we find the proportion to be nearly 6 to 1. But if from each be deducted the deaths by cholera, this proportion will then stand 4 to 1; while that of the population is about 7 to 2.

Among the diseases mentioned, we notice that 1415 have fallen victims to consumption, while the number which have died of that disease in this place is 246, or 1 to 6. Scarlet fever numbers 221 victims; a small number, when it is considered that the mortality from the same disease here was 199. Typhus gives 84; in Boston, 45. Croup, 179; in Boston, 40. Measles, 290; in Boston, 70. Hooping cough, 63; in Boston, 22. The remark we made with regard to the mildness of this disease here, applies equally to that city. The proportion of deaths to the whole population, rating it at 220,000, is 1 in 21½. In 1831, rating it at 210,000, it was 1 in 33.

BENEFITS OF THE WARM BATH.

AMONG the means of preserving health and preventing the assaults of disease, there is none of which the importance is more generally recognized than that of personal ablution by warm bathing. It is one, however, the benefits of which the good people in this city have been rather slow to realize. Until within two years we had but one public establishment for bathing, and that was so little patronized as scarcely to pay the necessary expenses for maintaining it. At present we have three or more, all of which we believe command a fair share of patronage. Still it is certain that the advantages of warm bathing are less highly rated here than in many other American cities, and much less so than in Europe. One reason for this may be that our vicinity to the sea, and the facilities afforded for the cold bath during the summer season, have tended to give this a decided preponderance in the estimation of our citizens, and to bring the other mode into comparative disrepute. There is also among us some remains of a prejudice that warm bathing during the winter is calculated to relax the system and render it more susceptible of cold. Experience is daily confuting this idea, and convincing those who are willing to make the trial, that they may indulge in the luxury of a warm bath in the coldest weather, not only without danger but with the most salutary effect. There is indeed far more analogy than is generally supposed between the effect of warm and of cold bathing. The primary effect of both is to diminish the cutaneous transpiration; for it is very well known to those who have examined the subject, that this is the general effect of moisture externally applied, through a very considerable range of temperature. By the immersion itself, therefore, the perspiration, instead of being increased, is checked or entirely arrested. Of this

fact any one may easily convince himself, by examining, immediately on leaving the water, the state of any portion of the surface from which the fluid has been gently removed with the least possible friction. It will be found to want the moisture which the skin naturally possesses, and to be in fact more dry than usual. On using friction, however, the activity of the extreme vessels is soon manifested, and the whole surface breaks out in a profuse perspiration. Now the reaction which takes place in this case is a vital reaction, produced by the powers of the system in the healthy performance of their functions. It is not that the fibres of the skin are relaxed by the water, so that a greater facility is afforded to the perspired fluid to escape. Still less is it that the pores are freed from offending matters which previously plugged them up, and thus rendered pervious to moisture. Nature is not thus dependent on our assistance for effecting her operations. The analogy, therefore, between the effect of warm and cold bathing, consists in this, that in both cases the glow which is or should be produced is the effect of reaction. But in the case of warm bathing this reaction is the more sure to follow, as there is no preceding chill. To the feeble, especially, and those who, therefore, particularly need a renewed action of the cutaneous vessels, the warm bath is at once the most grateful and the most beneficial of the two. Unless the system possesses a certain amount of vigor, the chill which is produced by immersion in cold water is not succeeded by reaction, no perspiration follows, and instead of renovated vigor the individual experiences only lassitude and exhaustion. The surface is pale, the extremities benumbed, the pulse languid; while the lungs are congested and the stomach oppressed. Such are to many the effects of cold bathing, even during the short season in which it is viewed as an appropriate recreation. Of course there are few or none who choose to try the experiment of its effects during the rigors of winter. At all seasons the warm bath is at once a luxury and a benefit; and when it can be enjoyed with so little sacrifice of time or money, we cannot but feel surprised that the practice is not more general among us.

In connection with this subject, a brief account of the attention paid to bathing by the ancients, and of the facilities enjoyed by them for this purpose, will not perhaps be unacceptable to our readers. That which we subjoin is principally taken from a short article on the subject, contained in the *Révue Médicale* for August, 1832.

The use of baths in certain public establishments appropriated to the purpose, appears to have been known from time immemorial, in the cities of the East. It passed from Asia to Greece, and from Greece to Italy. It was not solely in order to procure to the inhabitants of Rome a healthy beverage, that an immense volume of water was conveyed to the city to be there distributed into its different regions; another purpose was to maintain a sufficient number of public and private baths. By the descrip-

tion which Vitruvius gives us of these establishments, we learn that those who frequented them did not confine themselves to mere ablution, but that they used also vapor baths in apartments constructed expressly for this purpose. It appears, indeed, that among the Romans a complete bath was a complicated affair, including a series of gymnastic exercises. But this kind of bath was adapted only to the luxurious and idle, while those for the common people were far more simple. Even those establishments, however, which were open to all classes, were so extensive and so well arranged as to form some of the most splendid edifices in Rome.

The hour at which the baths were most frequented in Rome, was 2 or 3, P. M., immediately before their principal meal. The sound of a bell then announced to the citizens that the warm baths were about to be closed, and that those who came at a later hour must be content with a cold one. The use of public baths, introduced among the Gauls by the Romans, was continued after the introduction of Christianity; this, at least, is what we are authorized to conclude from the general custom which prevailed of constructing baths in the monasteries. It is probable that in the 12th century the use of vapor baths, with which the crusaders had become familiar during their stay in Palestine, became on their return more general than before. These vapor baths were taken at a certain price in public bagnios, which had taken the place of the ancient *thermae*. Among those who frequented these bagnios, some were content with taking a simple vapor bath, while with others this was only a preparation for passing into a bath of warm water, as is the case in the public baths of the East. The general custom, in the 13th and 14th centuries, was to bathe before dinner.

There is probably no city in Europe where bathing is carried to such extent as in Paris. The bathing houses are very numerous, and are furnished with water partly from the river and partly from the new canal leading from the Ourcq. The establishment of Tivoli, the first in which factitious mineral waters were introduced, dates from the year 1800. In 1816, there were in Paris five hundred public bathing houses; the number at present is nearly four thousand.

LUNAR CAUSTIC BLISTERS.

THERE are many inconveniences attending the use of the common blisters. In some persons the degree of strangury they induce almost precludes their application, and always they are slow in their action, and produce a sore requiring careful and frequent dressing. In the Transactions of the Medical and Physical Society of Calcutta, the lunar caustic is proposed as a substitute for cantharides in the production of vesication. The part to be blistered is slightly wet, and a stick of caustic slowly drawn over it, first longitudinally, and then across. In about ten hours the fluid may be discharged by punctures, and no dressing will be requir-

ed—the cauterized cuticle forming a sufficient protection to the inflamed surface beneath.

This plan has been pursued, it seems, for a long time by Mr. Boswell, who proposes the plan to the profession, and is approved by the intelligent Secretary of the Society. Mr. B. has put on more than thirty of these blisters, during a pneumonic case; and his preference is founded on the more immediate action and powerful effect of this method, and its entire safety as respects the urinary organs; it is also less troublesome and less painful, as it requires no dressing, and may be used without a moment's delay, the means being easily carried in a pocket case.

DEATH OF A FRENCH SURGEON BY THE HAND OF A PATIENT.

MANY occurrences which, in common times, would attract and rivet the attention, have been entirely obscured of late, by the thick and changing cloud of political events that still continues to absorb the public view. But there are others, that even in the midst of that cloud, are encircled with too intense a glory, or dyed with too deep a blackness, to be concealed—events, the nature of which is so extraordinary as to compel notoriety. Among the latter we have to record the deliberate assassination of M. Delpech, a French surgeon of great distinction and advanced age. This deplorable murder has excited at Montpellier, the residence of the deceased, the most intense and melancholy interest; and wherever else the tidings have come, they have produced a corresponding sensation. The account we have of this transaction is as follows:—The murderer, whose name was Demptos, had been recently under the professional care of M. Delpech. He was treated for varicocele, and it would seem that the cure was attended with circumstances that rendered it imprudent for him to form a matrimonial engagement. It is further stated that M. Delpech, having been consulted by a family into which Demptos wished to marry, gave them some intimation of the patient's condition. Demptos met M. Delpech at the theatre the night before the fatal deed, and it is thought that he demanded from M. Delpech a retraction of what had been said to the family. However, on the 29th, the assassin stationed himself in the balcony of the house where he lodged, and watched the approach of M. Delpech's cabriolet. It came, when with one shot from a double-barrelled gun he killed the servant, and with the other the master. He then retired into the house, and blew out his own brains with a pistol. M. Delpech expired in a few minutes. His obsequies were performed on the 31st, amid the general lamentation of the people of Montpellier. Orations were pronounced over his tomb by MM. Duges, Boyer, and Trinquier. M. Delpech was in his 60th year. He was a Chevalier of the Legion of Honor, professor of clinical surgery to the faculty of Montpellier, surgeon-in-chief to the principal hospital, and a member of nu-

merous learned societies throughout Europe. On examination of his body, it was found that the ball had entered just above the nipple of the left breast; after fracturing a rib, it passed through the upper part of the lung, tore the arch of the aorta, divided the apex of the right lung, and came out at the shoulder of that side, after a fracture of the humerus.

Ipecacuanha in Cholera.—By a letter addressed from Baron De Vinculine, a Russian officer of rank, to a particular friend, dated Barken, 10th March, 1832, we are informed that in his vicinity ipecacuanha, in large doses, was given in cholera with great benefit and success. Of this powder at first 40 grains were given; and the dose, it is said, was increased gradually to 300, that is, 5 drachms. We have no precise information on the effects of this remedy thus administered; but it is said, rather vaguely, that out of 100 attacks at least 90 were cured.

We have tried this remedy in several cases of cholera, and with the following results. In one case of pure pulseless collapse a drachm of ipecacuanha was given, and was not followed by vomiting. An hour after, another drachm was given, and was equally ineffectual in producing vomiting; and the man, who had been ill for two days, died next morning. In another case of collapse, also without pulse, but with great heat at stomach, a drachm of ipecacuanha was given, and did not induce vomiting; and after an hour a similar dose was given with the same want of effect. In a third case, in which, with occasional vomiting, the purging was profuse and pulse weak, 30 grains of ipecacuanha were given, and did not produce vomiting in the course of half an hour, when other 30 grains were given, and were followed by imperfect vomiting. A quarter of an hour after, other 30 grains were given; and after the lapse of about three quarters of an hour, copious vomiting took place. The purging now stopped; the pulse became fuller in the course of a few hours; and the patient rallied so as to be convalescent in two days. Two days after, however, he had a relapse, and was with difficulty brought out of the incipient stage of collapse.—*Edinburgh Medical and Surgical Journal.*

Improved Method of Embalming.—A singular and highly important discovery has recently been made by Messrs. Capron and Boniface, chemists, at Chaillot. By a process which they keep secret, and to which they have given the name of 'Mummification,' they have succeeded, after passing a number of years in experiments, in so modifying and perfecting the known processes of preserving bodies as to reduce them to mummies, leaving all the forms unaltered. All the elements of disorganization which show themselves in the human body so soon after death are completely destroyed, and not only the external body, but all the viscera, the lungs, the heart, the liver, and even the brain, are perfectly preserved; the features also remain so perfectly uninjured, that correct portraits may be taken at any length of time after death, and, as the body is not enveloped in bandages as in the Egyptian method, the natural forms are perfectly preserved. The operation requires but few days, after which the dead bodies may be preserved in a room or vault, or interred in the ordinary way, without being accessible to worms. They may also be exposed to all the varieties of the air, either in a standing or sitting position, without undergoing any alteration.

Anthracite in Wrentham, Mass.—Specimens of this mineral have been forwarded to us by Mr. S. Day, in a letter dated Providence, R. I. Oct. 11. It is stated to be newly discovered—that the boring has been carried to eighty feet, and the excavation or shaft to sixty; that the coal lies in strata of different depths, interspersed with slate, and that it is proposed, should the prospect continue fair, to petition the legislature for a charter of incorporation, and in the spring to push their enterprise with vigor. The coal appears like the European anthracite, and resembles that of Rhode Island more than that of Pennsylvania. The latter State possesses such vast resources in this mineral, and of such admirable quality and easy acquisition, that prudent men will look well to every undertaking, which must depend, in a degree, upon successful competition.—*Silliman's Jour.*

Dr. Spurzheim's History.—In a very interesting account of the life, character and labors of this distinguished philosopher, in the last number of *Silliman's Journal*, we find his physical history recorded in the following comprehensive paragraph.

In his last sickness he appears to have relied too confidently upon the strength of his constitution, and the simplicity of his habits of living, which led him to neglect the use of medicine; his vigorous intellect sunk under the exertion of its own intense energy, and his physical powers were broken down by his mind; as was happily said by another, *the sword eat up the scabbard*. Such a catastrophe should prove a warning to all ardent, intellectual men, who, when impelled by great motives, are in peculiar danger of prostrating their faculties, and of coming prematurely to the grave.

M. Cuvier.—The French nation is doing for Cuvier what the British people are doing for Sir Walter Scott—raising a subscription to perpetuate his memory by a visible and lasting monument. The managing committee have invited the authors of works on Natural History, and other scientific writers of celebrity, to contribute copies of their works in aid of the fund; and they make an earnest appeal to all who feel the immense void created in the literary world, by the loss of their great contemporary.

The celebrated Professor of Anatomy, Anthony Scarpa, died at Pavia, on the 31st October last, in the eighty-fifth year of his age. He left an ample fortune.

Spurzheim's Works.—Messrs. Marsh, Capen & Lyon, of this city, propose publishing revised editions of the works of the late Dr. Spurzheim.

Whole number of deaths in Boston for the week ending Jan. 26, 21. Males, 11—Females, 10. Stillborn, 1.

Of inflammation of the lungs, 1—lung fever, 4—decline, 1—dropsy, 1—intemperance, 2—croup, 1—brain fever, 1—teething, 1—disease of the heart, 1—liver complaint, 1—consumption, 2—infantile, 1—old age, 1—convulsions, 1—suicide, 1—abscess, 1.

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